

EXHIBIT 1



MICHIGAN

**Manual of Uniform
traffic control devices**

MICHIGAN DEPARTMENT OF STATE HIGHWAYS • MICHIGAN DEPARTMENT OF STATE POLICE

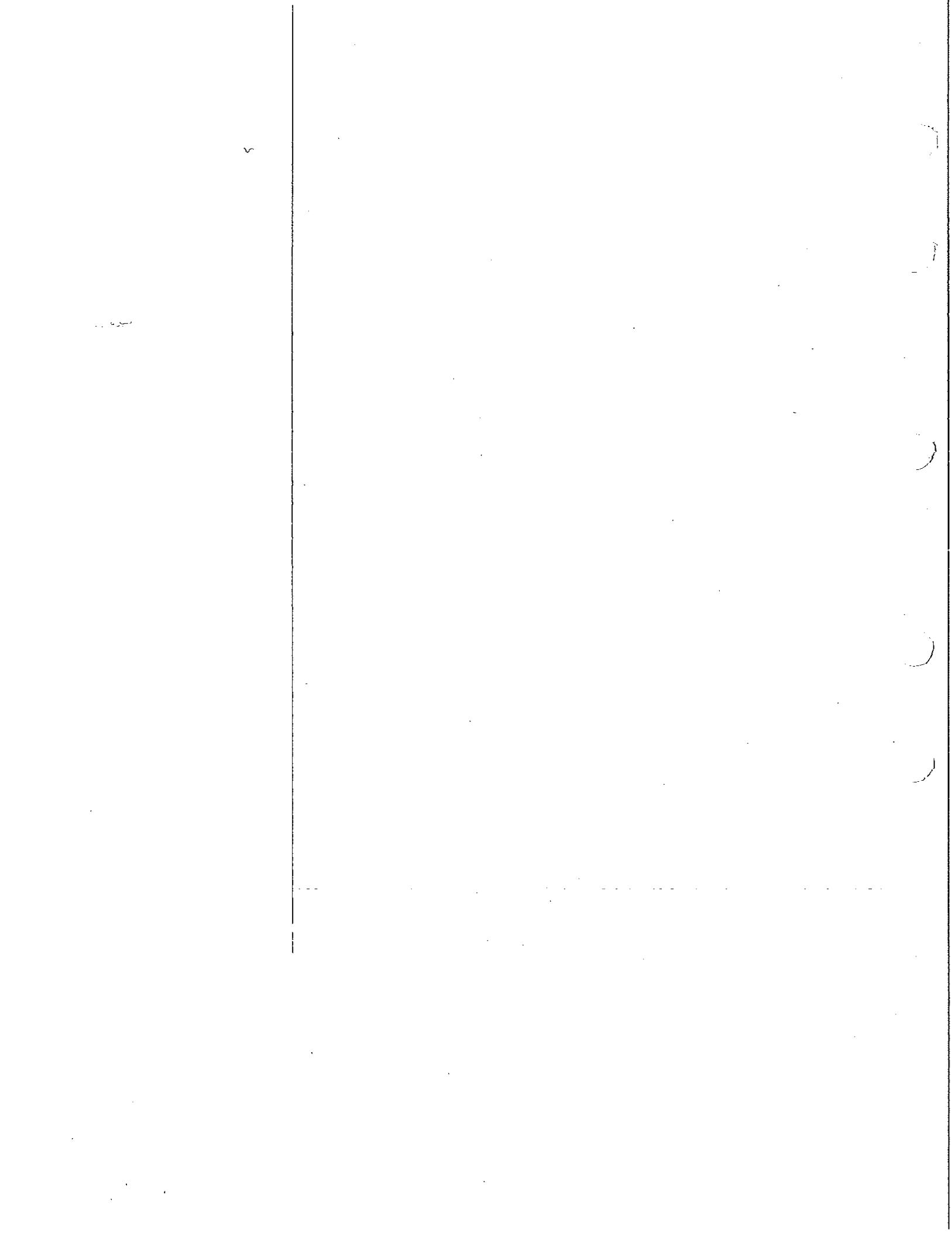
ERRATA

MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES

3RD REVISION

Publication of the 3rd Revision to the Michigan Manual of Uniform Traffic Control Devices has the following errors which require correction:

1. The BUS STOP symbol sign, page 58a, should have a black transit logo if a logo is utilized.
2. The supplemental NO PARKING educational plaque, page 62, shall have red legend and border on white background rather than black legend and border as shown.
3. Figure 3-10c, page 231, the identification of the LANE ENDS MERGE RIGHT sign and the Pavement Width Transition symbol sign should be transposed.
4. The General Information Signs (I Series), pages 139 through 141c, shall have white legend on green background; except State Police/Sheriff Dept. Signs, 17-1 and 17-2, shall have white legend on blue background. The 17-3, 17-4 signs shall remain as shown.



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STATE HIGHWAYS BUILDING - POST OFFICE DRAWER K - LANSING, MICHIGAN 48904

JOHN P. WOODFORD, STATE HIGHWAY DIRECTOR

October 1, 1973

To: Manual Recipient

John P. Woodford, Director
From: Michigan Department of
State Highways

John R. Plants, Director
Michigan Department of State Police

Subject: 1973 Edition of the Michigan Manual of Uniform Traffic Control
Devices

The 1973 edition of the Michigan Manual of Uniform Traffic Control Devices includes recent changes in national standards relating to traffic control device design, construction, and application on all public highways and streets throughout the State of Michigan. In accordance with Section 608, Act 300, P.A. 1949 as amended, the provisions included in this Manual are the standards to be adopted by the State, counties, townships and municipalities.

If you are an official of a municipality or other governmental agency, and you do not personally have a direct need to retain your copy of this publication, we suggest that you make it available to that person in your organization most concerned with highway traffic operations. We would appreciate being advised if you transfer your copy of the Manual to another individual or if you change your address so that distribution records can be kept current. Future revisions can then be appropriately directed.

If additional copies of the Manual are desired, they can be obtained for the production cost of \$9.00 each. Checks should be made payable to the State of Michigan. Notification of address change or Manual transfer, as well as request for additional copies, should be directed to the Contracts Section, Publications Unit, Michigan Department of State Highways, Drawer K, Lansing, Michigan, 48904.

During the next few months, the Michigan Department of State Highways will be conducting workshops at various locations throughout the State for the benefit of selected local authorities who have responsibilities for certain phases of traffic operations on public highways and streets. If you have such responsibilities, we urge you to become familiar with provisions included in the Michigan Manual and plan to attend a workshop when it is held in your area.

We believe this Manual offers the best means of attaining traffic control device uniformity on all roads and streets, thereby increasing the comfort and safety of all highway users.

John P. Woodford, Director

Michigan Department of State
Highways

John R. Plants, Director

Michigan Department of State
Police



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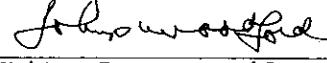
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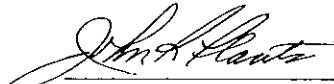
1973 EDITION

MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES
ADDENDUM

In section 2B-35, a sign with the legend RIGHT TURN ON RED AFTER STOP (R10-9) is included. According to section 612 (d) (2), Act 300, P.A. 1949, as amended, a red flashing arrow is the only traffic control device which will permit a driver to make a right turn when facing a steady red signal indication.

At the present time, legislation is being considered that would provide for permitting the R10-9 sign as well as the red flashing arrow to be used to designate locations where a right turn may be permitted with a steady red signal indication displayed. However, until such legislation has been approved, the red flashing arrow is the only device available to permit right turns in the face of a steady red indication. The R10-9 sign is not to be used as outlined in section 2B-35 and other sections of the 1973 edition of the Michigan Manual of Uniform Traffic Control Devices until legislation permitting the sign has been enacted.


John W. Ford Director
Michigan Department of State Highways


John H. Blantz Director
Michigan Department of State Police

October 1, 1973

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MICHIGAN MANUAL OF
UNIFORM TRAFFIC
CONTROL DEVICES
1973 EDITION



Prepared By:
**MICHIGAN DEPARTMENT
OF STATE HIGHWAYS**
JOHN P. WOODFORD, Director

In Conjunction With
**MICHIGAN DEPARTMENT
OF STATE POLICE**
JOHN R. PLANTS, Director

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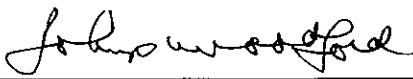
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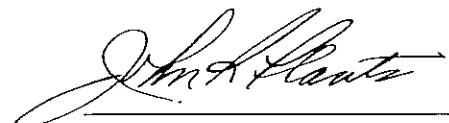
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CERTIFICATION

In accordance with Section 608, Act 300, P.A. 1949 as amended, we hereby certify that the provisions of this Manual constitute the prescribed standards of design, construction and application of traffic control devices for use upon highways within this State and declare these to be the standards to be adopted by the State, counties, townships, and municipalities.


John Woodford Director

Michigan Department of State Highways


John A. Blantz Director
Michigan Department of State Police

October 1, 1973

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MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES

INTRODUCTION

Traffic control devices are all signs, signals, markings, and devices placed on or adjacent to a street or highway by authority of a public body or official having jurisdiction to regulate, warn, or guide traffic.

The need for high uniform standards was recognized long ago. The American Association of State Highway Officials (AASHO) published a manual for rural highways in 1927 and the National Conference on Street and Highway Safety published a manual for urban streets in 1929. But the necessity for unification of the standards applicable to different road and street systems was obvious. To meet this need, a joint committee of the American Association of State Highway Officials and the National Conference on Street and Highway Safety developed, and published in 1935, the original edition of the National "Manual on Uniform Traffic Control Devices" (MUTCD). That committee, though changed from time to time in organization and personnel, has been in continuous existence and has been responsible for periodic revisions to the National MUTCD.

The first "Michigan Manual of Uniform Traffic Control Devices" was issued in 1939 by State Highway Commissioner Murray D. Van Wagoner and State Police Commissioner Oscar G. Olander. The Michigan Manual was revised and expanded in 1953, and again in 1963. This, then, is the fourth edition of the "Michigan Manual of Uniform Traffic Control Devices".

In the interest of national uniformity, the Michigan Manual is patterned after and, insofar as Michigan law will permit, conforms very closely with the 1971 edition of the National MUTCD, issued by the Federal Highway Administration of the U.S. Department of Transportation.

This 1973 edition of the Michigan Manual, under the provisions of the Michigan Vehicle Code (Act 300, P.A. 1949, as amended), revises the standards for traffic control devices for use in the State of Michigan and supersedes all previous editions. Unless otherwise provided either herein or by federal compliance schedules, all traffic control devices hereafter erected shall conform to this Manual.

In recognition of the proven international value and need for symbols, and to present a uniform and better understood system of signing, this 1973 revision includes a wider use of symbols, both in the regulatory and warning series. Color coding is employed more extensively in signs and to define direction of travel by pavement markings.

PART I. GENERAL PROVISIONS

IA-1 Requirements of Traffic Control Devices

This Manual sets forth the basic principles that govern the design and usage of traffic control devices. These principles appear throughout the text in discussions of the devices to which they apply, and it is important that they be given primary consideration in the selection and application of each device.

The Manual presents traffic control device standards for all streets and highways regardless of type or class or the governmental agency having jurisdiction. Where a device is intended for limited application only, or for a specific system, the text specifies the restrictions on its use.

To be effective, a traffic control device should meet five basic requirements. They are:

1. Fulfill a need.
2. Command attention.
3. Convey a clear, simple meaning.
4. Command respect of road users.
5. Give adequate time for proper response.

In the case of regulatory devices, the actions required of motorists and pedestrians are specified by State statute or by local ordinance or resolution. Uniformity of meaning is vital to effective traffic control devices. Meanings ascribed to devices in this Manual are in accord with the Michigan Vehicle Code.

Five basic considerations are employed to insure that these requirements are met. They are: design, placement, operation, maintenance, and uniformity.

Design of the device should assure that such features as size, contrast, colors, shape, composition, and lighting or reflectorization are combined to draw attention to the device; that shape, size, colors, and simplicity of message combine to produce a clear meaning; that legibility and size combine with placement to permit adequate time for response; and that uniformity, reasonableness of the regulation, size and legibility combine to command respect. In the design of a device, minor modifications of the specified design elements may be made as necessary to fit special conditions, provided that the essential appearance characteristics are met.

Placement of the device should assure that it is within the cone of vision of the user so that it will command attention, that it is positioned with respect to the point, object, or situation to which it applies to aid in

conveying the proper meaning; and that its location, combined with suitable legibility, is such that a driver traveling at normal speed has adequate time to make the proper response.

Operation or application should assure that appropriate devices and related equipment are installed to meet the traffic requirements at a given location. Furthermore, the device must be operated and placed in a uniform and consistent manner to assure, to the extent possible, that the motorist can be expected to respond properly to the device, conditioned by his previous exposure to similar traffic control situations.

Maintenance of devices should be to high standards to assure that legibility is retained, that the device is visible, and that it is removed if no longer needed. Clean legible, properly mounted devices in good working condition command the respect of motorists and pedestrians. In addition to physical maintenance, functional maintenance is required to adjust needed traffic control devices to current conditions and to remove those which are not needed. The fact that a device is in good physical condition should not be a basis for deferring needed replacement or change. Furthermore, carelessly executed maintenance can destroy the value of a group of devices by throwing them out of balance. For example, replacement of a sign in a group or series by one that is disproportionately large may tend to deprecate others in the vicinity.

Uniformity of traffic control devices simplifies the task of the road user because it aids in recognition and understanding. It aids road users, police officers, and traffic courts by giving everyone the same interpretation. It aids public highway and traffic officials through economy in manufacture, installation, maintenance and administration.

Simply stated, uniformity means treating similar situations in the same way. The use of uniform traffic control devices does not, in itself, constitute uniformity. A standard device used where it is not appropriate is as objectionable as a nonstandard device; in fact, it may be worse, in that such misuse may result in disrespect for the device at those locations where it is used properly.

1A-2 Responsibility for Traffic Control Devices

The responsibility for traffic control devices rests with many governmental jurisdictions. However, traffic control devices placed and maintained by State and local officials are required by statute to conform to the Michigan Manual of Uniform Traffic Control Devices. Section 608 of the Michigan Vehicle Code contains the following pertinent provision:

"The state highway commissioner and commissioner of state police shall adopt a manual and specifications for a uniform system of traffic-control devices consistent with the provisions of this chapter for use upon highways within this state. Such uniform system shall

correlate with and so far as possible conform to the system then current as approved by the American Association of State Highway Officials and such manual may be revised whenever necessary to carry out the provisions of this act. It is hereby declared to be the policy of the state of Michigan to achieve, insofar as is practicable, uniformity in the design, and shape and color scheme of traffic signs, signals and guide posts erected and maintained upon the streets and highways within the state with other states."

1A-3 Engineering Study Required

The decision to use a particular device at a particular location should be made on the basis of an engineering study of the location, notwithstanding requirements specified throughout this Manual. Thus, while this Manual provides standards for design and application of traffic control devices, the Manual is not a substitute for engineering judgment.

Qualified engineers are needed to exercise the engineering judgment inherent in the selection of traffic control devices, just as they are needed to locate and design the roads and streets which the devices complement. Jurisdictions with responsibility for traffic control that do not have qualified engineers on their staffs should seek assistance from the Michigan Department of State Highways, their county, a nearby large city, or a qualified traffic engineering consultant.

1A-4 Meanings of "Shall," "Should" and "May"

In the Manual sections dealing with the design and application of traffic control devices, the words "shall," "should" and "may" are used to describe specific conditions concerning these devices. To clarify the meanings intended in this Manual by the use of these words, the following definitions apply:

1. SHALL — A mandatory condition. Where certain requirements in the design or application of the device are described with the "shall" stipulation, it is mandatory when an installation is made that these requirements be met.
2. SHOULD — An advisory condition. Where the word "should" is used, it is considered to be advisable usage, recommended but not mandatory.
3. MAY — A permissive condition. No requirement for design or application is intended.

1A-5 Developing New Standards and Interpretation and Revision of Existing Standards

Advances in technology will produce changes in the highway, the motor vehicle, and in driver proficiency. As a result, portions of the system

of control devices shown in this Manual will gradually become obsolete. In addition, unique situations often arise for device applications which may require interpretation or clarification of this Manual. It is important to have a procedure for recognizing these developments and for introducing new ideas and modifications into the system.

The following procedure will generally apply to the handling of interpretations, experimentation, and changes to the Michigan Manual of Uniform Traffic Control Devices.

1. A written request for clarification, permission to experiment, or change in Manual provisions should be forwarded to the Michigan Department of State Highways. When the request cannot be resolved at the State level, and it is judged the item can best be handled by the Federal Highway Administration, it will be processed through the American Association of State Highway Officials in accordance with Federal Highway Administration procedures.

2. All requests should contain the following information:

- a. A brief statement indicating what change, modification, or question is to be resolved.
- b. Any illustrations which would help to explain the request.
- c. Any supporting research data which is pertinent to the item to be reviewed.

3. Rulings on requests will be given as:

- a. Interpretation — this would generally be a clarification of intended applications of Manual requirements for specific situations.
- b. Approval as an alternate — this would be permission to use a new device or modification, even though the Manual prescribes a device for the same purpose. Generally, it would be expected that the proposed alternate would offer advantages over the device prescribed in the Manual.
- c. Approval for experimentation — this would be permission to use, for test and evaluation, an unproven device or modification which appeared to be a sound idea. The type of information to be gathered during the test and evaluation of the device would be stated as part of the request and the gathering of these data would be a conditional part of the approval.

4. The Michigan Department of State Highways will be responsible for acknowledgement of all requests and dissemination of official rulings to the appropriate authority. When rulings involve changes in Michigan Manual provisions, revisions to this Manual will be issued. Generally, an annual revision will be issued including all changes for the preceding calendar year.

1A-6 Relation to Other Documents

Two publications are specifically designed to provide the content and language of legislation needed to give regulatory devices the same meaning in all jurisdictions. These are the Michigan Vehicle Code and the Uniform Traffic Code for Cities, Townships and Villages. Both Codes require the placing of signs or other traffic control devices to make some of their provisions effective, and both define the legal meaning of certain devices. The Michigan Vehicle Code directs State authorities to adopt a manual for a uniform system of traffic control devices, and the Uniform Traffic Code for Cities, Townships and Villages requires devices under municipal jurisdiction to conform thereto.

The standards in the Manual for Signing and Pavement Marking of the National System of Interstate and Defense Highways, published by the American Association of State Highway Officials, have been incorporated herein for freeway application, providing one document for all streets and highways.

Other documents, to the extent they are incorporated by specific reference, are made part of this Manual:

Standard Alphabets — Federal Highway Administration, 1966

Standard Color Charts — Federal Highway Administration, 1970

Standard Highway Signs — Federal Highway Administration or Michigan Department of State Highways

Institute of Traffic Engineers, Adjustable Face Vehicle Traffic Control Signal Head Standards, 1970

Association of American Railroads, Bulletin 6, Railroad Highway Grade Crossing Protection, 1966

Institute of Traffic Engineers, Adjustable Face Pedestrian Signal Head Standard, 1963

Other documents that are useful sources of information with respect to utilization of these standards include:

Traffic Engineering Handbook — Institute of Traffic Engineers

Highway Capacity Manual — Highway Research Board

A Policy on Geometric Design of Rural Highways — American Association of State Highway Officials

A Policy on Arterial Highways in Urban Areas — American Association of State Highway Officials

Manual of Traffic Engineering Studies — Institute of Traffic Engineers Volume 12, Highway Safety Program Manual, Highway Design Construction and Maintenance, Federal Highway Administration

Volume 13, Highway Safety Program Manual, Traffic Control Devices, Federal Highway Administration

1A-7 Color Code

The following color code establishes general meanings for eight colors in a total of twelve colors that have been identified as being appropriate for use in conveying traffic control information. Central values and tolerance limits for each color are available.¹

The four colors for which no meaning has been assigned are being reserved for future applications. The meanings described in this Section are of a general nature. More specific assignments of colors are given in the individual Parts of this Manual relating to each class of devices.

Color Code:

- RED—Stop or prohibition.
- GREEN—Indicated movements permitted, direction guidance.
- BLUE—Motorist services guidance.
- YELLOW—General warning.
- BLACK—Regulation.
- WHITE—Regulation.
- ORANGE—Construction and maintenance warning.
- PURPLE—Unassigned
- BROWN—Public recreation and scenic guidance.
- STRONG YELLOW-GREEN—Unassigned.
- LIGHT BLUE—Unassigned.
- CORAL—Unassigned.

¹ Available from the Federal Highway Administration, Washington, D.C. 20591.

2D-1 Scope of Conventional Road Guide Sign Standards

Specifications for Conventional Road Guide Signs prescribed herein shall apply to any road or street other than an expressway or freeway.

2D-2 Application

Guide signs are essential to guide the motorist along streets and highways, to inform him of intersecting routes, to direct him to cities, villages, or other important destinations, to identify nearby rivers and streams, parks, forests, and historical sites, and generally to give him such information as will help him along his way in the most simple, direct manner possible.

2D-3 Color, Reflectorization, and Illumination

Except where otherwise specified herein for individual signs or groups of signs or markers, Guide signs on conventional roads and streets shall have a white message on a green background, or as an alternate for this class of roads only, a black message on a white background. In either case, there should be consistency of application on any given highway.

Requirements for reflectorization or illumination are stated under the specific headings for individual guide signs or groups of signs. General provisions are given in sections 2A-16 through 2A-18.

2D-4 Size of Signs

For most guide signs, the legend is so variable that there can be no rigidly standardized size. The sign size must be fixed primarily in terms of length of the message and the size of the lettering and spacing necessary for proper legibility. However, for signs with standardized designs, such as route markers, it is practicable to fix standard sizes.

Under some circumstances, particularly for overhead signs, the available space may limit sign width. A sign mounted over a particular roadway lane to which it applies may have to be limited in width to the width of the lane. Where vertical clearances are limited and standard sign design cannot be used, a reduced letter height, interline and edge spacing may be used. When a reduction in the standard size is necessary, the design used should be as nearly comparable to standards as possible.

2D-5 Lettering Style

The standard lettering for conventional highway signs is upper-case letters (sec. 2A-15). However, when letter height exceeds 8 inches, place names on guide signs should be composed of lower-case letters with an

initial upper-case letter. The initial upper-case letters shall be one and one-third time the "loop" height of the lower-case letters. Recommended designs have been developed for the upper-case and lower-case alphabets, together with tables of spacing.⁴

2D-6 Size of Lettering

For guide signs with varying legend, sign legibility is a direct function of letter size. The legibility distance must give the driver sufficient time to read the sign before he has passed it. Although, under the best conditions, a guide sign message can be read and understood in a brief glance, a reasonable safety factor must be allowed for inattention, blocking of view by other vehicles, unfavorable weather, inferior eyesight, or other causes for delayed or slow reading. On the other hand, the usual repetition of guide information on successive signs where conditions permit often gives a driver more than one opportunity to obtain the information he needs.

Though the reading time for any given sign varies greatly with the approach speed, standard lettering sizes should be consistent on any particular class of highways. The same conditions that induce lower speed — heavy traffic, frequent intersections or interchanges, unfavorable alignment, or extraneous distractions — usually create a need for greater legibility. Hence the size standards set forth are related to the type of highway rather than to variable speeds on any class of highways (Table II-1).

The minimum sizes specified should be exceeded where conditions indicate a need for greater legibility.

In rural districts on major routes, the principal legend on guide signs shall be in letters at least 7 inches in height. If desired, Destination signs (E11-4) and Mileage signs (E7-1) — standardized for special purposes on expressways and freeways — may be provided on conventional roads in rural districts for major highways. There should, however, be consistency of application for sign size on a given highway. On less important rural roads and on urban streets, the principal legend shall be in letters at least 5 inches high. Sign panels shall be large enough to accommodate the required legend without crowding.

Recommended layouts have been developed for standard highway signs showing interline, edge spacing and other specification detail. These layouts may be obtained from the Michigan Department of State Highways or from the Federal Highway Administration.

⁴Available from the Federal Highway Administration, Washington, D.C. 20591.

2D-7 Amount of Legend

Regardless of letter size, the legend on a guide sign must be kept to a minimum to be legible at a glance during the few moments that a driver can turn his eyes from the road. Guide signs should be limited to three lines of principal legend. Where two or more signs are included in the same overhead display, extra effort should be made to further reduce and simplify the amount of legend.

"Principal legend" here includes only place names, route numbers, and street names. Symbols, action information, cardinal directions and exit numbers may make up other lines of legend, within reasonable limits.

2D-8 Arrows and Symbols

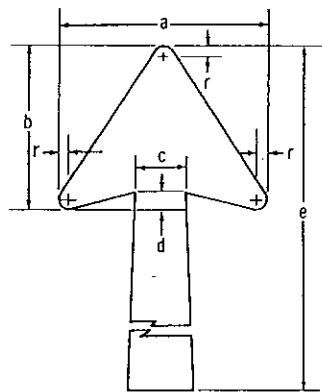
Arrows are used on many guide signs to indicate the directions toward designated routes or destinations. Arrows are pointed at any desired angle to convey a clear comprehension of the direction to be taken. At right-angle intersections, a horizontal arrow is appropriate. On a roadside sign, a directional arrow for a straight-through movement should point upward. For a turn, the arrow should be pointed upward as will best describe the design of the intersection, and at an angle related to the sharpness of the turn.

On overhead signs where it is desired to indicate a lane to be followed, the arrow shall point downward toward the center of that lane. Where a roadway is leaving the through lanes, the arrow shall point upward at an angle representative of the alignment of the exit roadway. If required, the through roadway lanes will be identified by downward-pointing arrows.

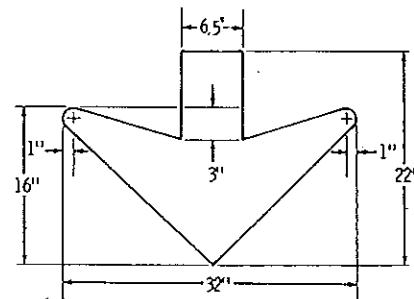
Downward-pointing arrows shall be used only on overhead guide signs which restrict the use of specific lanes to traffic bound for the destination(s) and/or route(s) indicated by these arrows. Downward-pointing arrows shall not be used unless an arrow can be pointed to each lane that can be used to reach the destination shown on the sign.

Arrows may be placed below the other sign legend, or to one side of it. At an exit, an arrow at the far side of the sign may help to emphasize the directional significance of the sign. For adequate legibility, it is recommended that the width across the barbs of the arrow be at least equal to the height of the largest letters on the sign, and for short downward-pointing arrows on overhead signs, about one and three-quarters times the letter height (figure 2-10).

Diagrammatic signing using arrows should approximate the intersection roadway geometrics, or the necessary part of it, in a clear, understandable manner to impart a glance-legible message (secs. 2E-20, 2E-24). Therefore, the standard arrow designs and applications may not be applicable to this type of signing. Other symbol designs should be essentially as shown in this Manual.



DIRECTIONAL ARROW



LANE ASSIGNMENT ARROW

Dimensions of Directional Arrow When Used With Various Letter Sizes

LETTER SIZE (Upper-Case)	Arrow Dimensions in Inches					
	a	b	c	d	e*	r
8"	8	5.51	1.90	0.74	10-14	0.44
10.67"	11	7.57	2.61	1.01	14-19	0.63
13.33"	14	9.64	3.32	1.29	17-23	0.75
16"	16	11.02	3.79	1.47	19-26	0.88

- Taper of $\frac{1}{2}$ " per ft. should be held constant for longer or shorter shaft lengths.

Figure 2-10. Dimensions of arrows on guide signs.

2D-9 Numbered Highway Systems

The purpose of numbering and marking highway systems is to identify routes and facilitate travel over the shortest and best roads.

The Interstate System and the United States (U.S.) System are numbered by the American Association of State Highway Officials, upon recommendation of the State highway departments. State and county systems are numbered by the appropriate authorities.

The basic guide for designating and numbering the U.S. System is the "Purpose and Policy in the Establishment and Development of United States Numbered Highways," published by the American Association of State Highway Officials.⁵

⁵ Available from the American Association of State Highway Officials, 341 National Press Building, Washington, D.C. 20004.

The principles of this policy should be followed in establishing other systems, with effective coordination between adjacent jurisdictions. Care should be taken to avoid the use of numbers or other designations which have been assigned to Interstate, U.S. or State routes in the same area. Overlapping numbered routes should be avoided, and the systems shall be given preference in this order: Interstate, United States, State and County.

2D-10 Route Markers and Auxiliary Markers

Route markers shall be used to identify and mark numbered highways, including Federal, State, or County roads, and park, forest, and other public roads. The markers for each system of numbered highways, which are distinctive in shape and color, shall be used only on that respective system and the approaches thereto.

To accomplish their purpose, route markers are usually mounted in assemblies which are formed when the route markers are accompanied by any of the various types of auxiliary markers.

Route markers, as well as any auxiliary markers which accompany them, shall be reflectorized for nighttime visibility as detailed in subsequent sections.

2D-11 Design of Route Markers (M1-1 to M1-7)

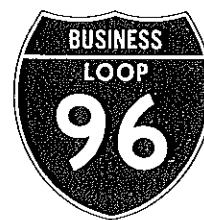
The design of route markers shall be established by the authority having jurisdiction. Specifications and provisions are as follows:

1. The Interstate Route Marker for use on intersecting highways and roads approaching an interchange with an Interstate route shall consist of a cutout shield, with the route number in white letters on a blue background, the word INTERSTATE in white letters on a red background, and white border and may contain the State name in white letters on a blue background (fig. 2-11). A 24-inch by 24-inch size is prescribed to accommodate route numbers with one or two digits, and a 30-inch by 24-inch size for route numbers having three digits.

2. The Off-Interstate Business Route Marker shall consist of a cutout shield carrying the number of the connecting Interstate route and the words BUSINESS (LOOP or SPUR). The legend and border shall be white on a green background, and the shield shall be of the same shape and dimensions as the Interstate Route Marker previously described (fig. 2-11). In no instance is the word INTERSTATE to appear on the Off-Interstate Business Route Marker. This marker may be used on a major highway that is not a part of the Interstate System, but one that serves the business area of a city from interchanges on the System.



Interstate
Route Marker
M1-1
24" X 24" (2-digit)
30" X 24" (3-digit)
(1½" and 2½" letters)
(10" numerals)



Off-Interstate
Business Loop Marker
M1-2
24" X 24" (2-digit)
30" X 24" (3-digit)
(1½" and 2½" letters)
(10" numerals)



Off-Interstate
Business Spur Marker
M1-3
24" X 24" (2-digit)
30" X 24" (3-digit)
(1½" and 2½" letters)
(10" numerals)

3. The U.S. Route Marker shall consist of a rectangular 24-inch by 24-inch or 30-inch by 24-inch plate, with black numerals on a white shield surrounded by a black background without a border (fig. 2-12). This marker shall be used on all U.S. routes and in connection with route marker assemblies on intersecting highways.

4. The Michigan Route Marker shall consist of a rectangular 24-inch by 24-inch plate, with a black letter "M" and numerals on a white diamond surrounded by a black background without a border (fig. 2-13). This marker shall be used on all State routes and in connection with route marker assemblies on intersecting highways.



U.S.
Route Marker
M1-4
24" X 24" (2-digit)
30" X 24" (3-digit)
(12" numerals)



State Route Marker
M1-6
24" X 24"
(3½" block letter M)
(8" numerals)

5. Wherever County road authorities elect to establish and identify a special system of important County roads, County road identification markers are to be designed and used as specified in the publication "A

Proposal for a Uniform County Route Marker Program on a National Scale.⁶ The Uniform County Route Marker shall be a pentagonal shape and shall consist of a reflectorized yellow legend (County name, route letter and number) and border on a reflectorized blue background, of a size compatible with other route markers used in common assemblies.

Signs of other designs may be used to designate County routes not a part of this special system of County roads, but such signs should be of a size comparable to the County Route Marker (M1-5).

6. The Forest Route Marker is designed in a trapezoidal shape and has white legend and border on a brown background. Its size shall be compatible with other route markers used in common assemblies. Forest Route Markers are intended for use on National park and forest roads.



County
Route Marker
M1-5
24" X 24"
(2" letters)
(8" route designation)

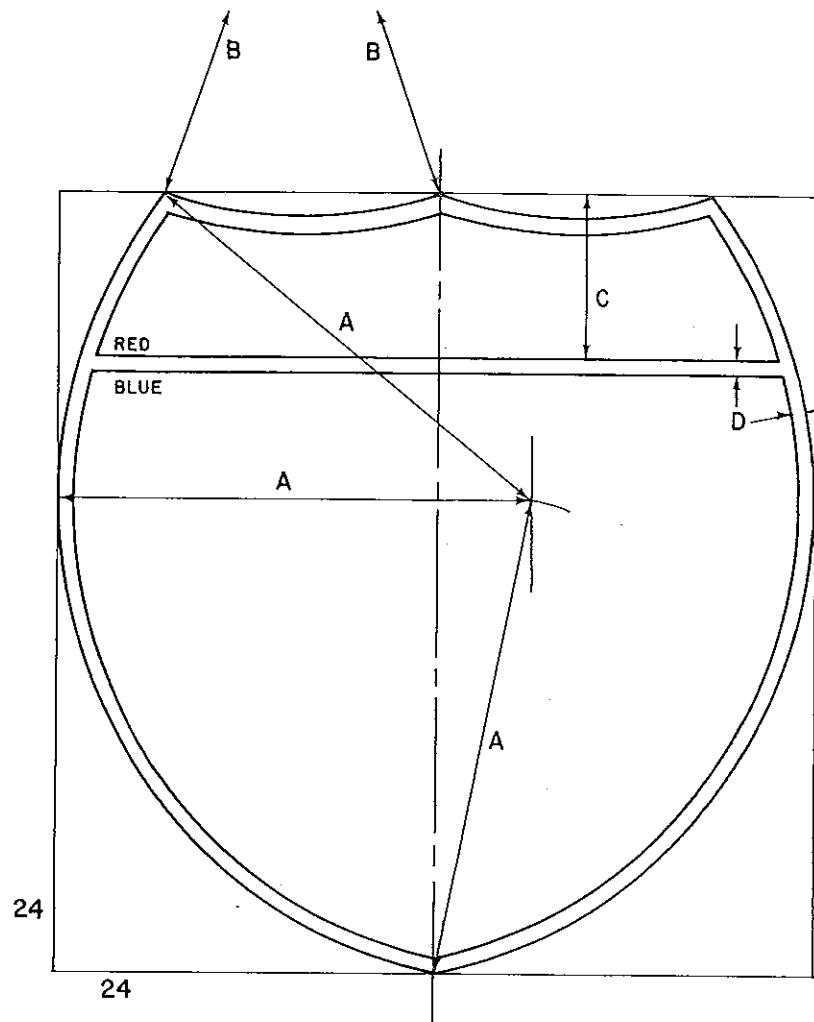


Forest Route Marker
M1-7
24" X 24"
(10" numerals)

Route markers of any type may be proportionally enlarged in any required size where greater legibility is needed. Where U.S. or State Route Markers are used as components of guide signs, only the outline of the shield or other distinctive shape should be used as shown in the illustration of the Combination Junction sign (sec. 2D-14).

Route markers shall be fully reflectorized as color design permits.

⁶Available from the National Association of Counties, Washington, D.C. 20006.



	A	B	C	D
24 X 24	15	15	5	1/2
30 X 24	17	24	5	1/2
36 X 36	22 1/2	22 1/2	7 1/2	3/4
45 X 36	25 1/2	36	7 1/2	3/4
48 X 48	30	30	10	1
60 X 48	34	48	10	1

Figure 2-11. Design of interstate and off-interstate route markers.